Faraday transcend all pomp of celebration, all burning words of praise. For whose the pen to weave so bright a glory as that electric fire which glows, through all the ages, round his brow, who first drew lightning from the lodestone, as Franklin drew it from the sky?

In the moment of separation that little spark breaks forth—instantaneous yet eternal. It is but one vivid point of the radiance that encircles his name, yet of itself it is glory enough.

From that spark a new branch of science has sprung, and under its creator's name, were it mine to carve his epitaph, these three should be the chosen words:—

FULMEN ERIPUIT FERRO!

Ever yours faithfully,
F. O. Ward.

NOTES.

We print elsewhere an account of the fourth annual meeting of the National Association for the Promotion of Technical and Secondary Education. After the meeting an important conference was held, and it is now hoped that all the influences which are tending towards the establishment of a proper system of technical instruction in England may soon be thoroughly organized. Next week we shall have something to say about the work of the conference and about the Association's report.

The *conversazione* given by the President of the Institution of Electrical Engineers, Prof. Crookes, F.R.S., and Mrs. Crookes, on Monday evening, was brilliantly successful. It was held in the galleries of the Royal Institute of Painters in Water Colours, Piccadilly. There were about 800 guests, among whom were many eminent men of science.

On Tuesday evening the Fellows of the Royal Meteorological Society and their friends dined together at the Holborn Restaurant, to celebrate the entrance of the Society upon its new premises in Great George Street, Westminster. Mr. B. Latham, the President, occupied the chair. Mr. A. R. Binnie (Engineer to the London County Council) proposed "The Royal Meteorological Society," and Mr. G. J. Symons responded. Mr. Latham, replying to the toast of "The President," referred to the enormous amount of records in the possession of the Society. All they now wanted was a few more members. However, they had gone on increasing, and were now in a prosperous state, as they had been able to collect from the members of the Society a considerable sum of money, which had been funded, and the interest on which would meet the expenses of the new establishment. The Society now possessed one of the finest meteorological libraries in the world, and one which would be of enormous value to future generations.

We are glad to note that the Marine Biological Association have now only three unoccupied tables. Many investigators are taking advantage of the facilities offered them at Plymouth.

The Exhibition Committee of the Photographic Society of Great Britain announce that the annual exhibition of that Society will be held at the Gallery of the Royal Society of Painters in Water Colours, Pall Mall East, from Monday, September 28, until Thursday, November 12 next. The exhibition will be open daily (Sundays excepted) from 10 a.m. to 5 p.m., and on Monday, Wednesday, Thursday, and Saturday evenings from 7 p.m. to 10 p.m. Medals will be awarded for artistic, scientific, and technical excellence of photographs, for lantern transparencies, and for apparatus.

The Pacific Postal Telegraph Company had lately a gathering of some 500 guests at the opening of a new telegraph office in San Francisco. After shortly describing the various instruments, Mr. Storrer, the superintendent, said he was often asked how long it took to telegraph to different places and get a reply. He would therefore now send a telegram to Portland, New York, Washington, Seattle, Tacoma, Canso (Nova Scotia), and London, inquiring about the weather. The first reply came from Portland in 3 minutes, "Weather fine"; the next from New York in 3 minutes 10 seconds, "Misty and warm"; Washington in minutes 11 seconds, "Misty and warm"; Seattle in 3 minutes 21 seconds, "Misty and calm"; Tacoma in 3 minutes 28 seconds, "Misty, cool, and calm"; Canso, Nova Scotia, in 4 minutes 20 seconds, "Cold and misty"; while the answer "Misty and cold" came from London in 6 minutes 22 seconds.

The Governors of the Royal Holloway College have appointed Miss M. W. Robertson to the Resident Lectureship in Natural Science. Miss Robertson, who is now a lecturer on the staff of Alexandra College, Dublin, has taken the degrees of B.A. and M.A., with high honours in chemistry and physics, at the Royal University of Ireland, and has also gained the University Studentship in Experimental Science.

The Education Department has issued a memorandum, by Mr. J. G. Fitch, on the working of the free school system in America, France, and Belgium.

The death of M. Rodolphe Kœppelin, a distinguished chemist, is announced. He was born at Colmar in 1810, and from 1828 to 1859 held the Chair of Physics and Natural History at the College of his native town. For many years he was intimately connected with the Agricultural Society of the Upper Rhine, and, as a chemist, he was able to render great services to the agriculturists of his department. After the Franco-German war, M. Kœppelin quitted Alsace, and settled in Paris, where he was regarded as one of the most eminent members of the Alsatian colony.

In another part of the paper we print a report, by Herr O. Jesse, of his observations of luminous clouds in the summer of 1890. We learn from Herr Jesse that on the night of June 25-26 last the luminous clouds were again very visible at Steglitz and Nauen, and that they were photographed eight times simultaneously at these two places. Writing to us from Sunderland on July 1, Mr. T. W. Backhouse says there was a fine display of the luminous clouds during the previous night, their motion being, "as usual, from a north-easterly direction." Mr. D. J. Rowan informs us that on the same night, from 11.30 p.m. to 12.30 a.m., the clouds, as seen at Kingstown, co. Dublin, "appeared well-developed on a polar arc of 30° and at a mean altitude of 5°." They had been faintly visible at Kingstown on June 3, 7, and 9. It is astonishing that no observer seems yet to have had energy and intelligence enough to take spectroscopic photographs of these striking phenomena.

According to a telegram from Melbourne, dated July 4, the Swedish-Australian Antarctic Committee of the Victorian branch of the Royal Geographical Society, which was formed to raise subscriptions in order to take advantage of Baron Nordenskiöld's offer to equip an expedition to the Antarctic regions, announces that a sum of £3000 only is required to complete arrangements, and that there is every prospect of the expedition starting in about fifteen months' time. It is expected that the expedition, in addition to its geographical and other scientific discoveries, will be the means of opening up extensive whale and other fisheries in the Antarctic seas.

We learn from the *Botanical Gazette* that Lieut. R. E. Peary, of the U.S. Navy, proposes to reach the North Pole on foot through Greenland, starting from Whale Sound, and expecting to be absent from 1½ to 2½ years. He states that the region about Whale Sound is rich in Arctic plants, Kane having brought over 106 species of Phanerogams and 42 of Cryptogams, several of which were new, but that very little has been done in its investigation since that time.

The danger of using arsenical preparations for the poisoning of plants is illustrated by the fact that Dr. B. L. Robinson, assistant in the Gray Herbarium, Cambridge, U.S.A., has been compelled to resign his position owing to ill-health resulting from this cause. It is stated that the poisoning of plants has now been entirely abandoned in the herbarium; the tightness of the cases, and constant handling of the sheets being relied on to preserve the specimens.

Mr. Spenser Le Marchant Moore has been appointed botanist to the Matto Grosso Gold and Explorations Concessions Expedition, which is about to depart for Brazil.

A new botanical journal has just been started, devoted to the diseases of plants, *Zeitschrift für Pflanzenkrankheiten*, edited by Dr. Sorauer, and published at Stuttgart.

Dr. John Murray contributes to the *Journal of Botany* for July a very interesting account of the Clyde sea-area, its physical characters, and the chief features of its natural history. This sea-area is a natural system of deep-sea basins or lochs in the west of Scotland, communicating southward with the Irish Channel by a single opening between the Mull of Cantyre and the shores of Wigtown and Ayr. It has a water surface of about 12,000 square miles; its greatest depth is 107, and its mean depth about 29 fathoms. There is a great variety in the pelagic fauna and flora in the surface and intermediate layers of water, the abundance and the species of organisms varying in the different layers according to the seasons, and even in different years. There is likewise a great variety in the bottom-living fauna and flora, which varies according to the nature and depth of the bottom in the different parts of the area. In some of the deeper lochs a few animals are met with which do not usually occur in more open situations around our coasts till a depth of 200 or 300 fathoms is reached. Some of these forms are limited to one loch on the west coast; for instance, *Conchœcia elegans*, which is abundant in Loch Etive. This form has never been taken in any of the lochs of the Clyde sea-area, although *Euchæta norvegica*, with which it is associated in Loch Etive, occurs abundantly in Upper Loch Fyne and Loch Goil. *Nyctiphanes norvegica* and *Boreophausia Raschii*, which are abundant in the upper lochs of the Clyde sea-area, do not, on the other hand, occur in Loch Etive.

The French Minister of Public Works has addressed a circular letter to civil engineers, asking them to use their influence to protect prehistoric monuments from the injury often done by ignorant proprietors. It seems that little respect is shown for such monuments in some parts of France. *La Nature* speaks of a proprietor who sold "a magnificent dolmen," which was to be transformed into "a tomb in a cemetery."

In his report, for 1890, to the trustees of the Peabody Museum of American Archæology and Ethnology, Prof. F. W. Putnam, the Curator, records that in no former year had the friends of the Institution been so generous in giving aid. Gifts for current expenses were received which, in the sum total, exceeded the regular income from the funds; and Mrs. Mary Copley Thaw, of Pittsburg, added no less than 30,000 dollars to the amount held in trust, this sum being set apart as an endowment for a fellowship.

An apparatus has been recently constructed by M. Ducretet, for getting quickly in the laboratory a fall of temperature 70° to 80° C. below zero, by means of the expansion of liquid carbonic acid. The inner of two concentric vessels contains, in alcohol, a serpentine metallic tube communicating through a tube with two stopcocks, with the carbonic acid reservoir outside, and opening below into the annular space round the inner vessel, in which are some pieces of sponge impregnated with alcohol. This two-walled vessel with coil is inclosed in a box. One stopcock being opened wide, the other slightly, the carbonic acid passes through the coil as snow, and turns to gas, with strong cooling effect, and any of it not vaporized in the coil is dissolved in the alcohol of the sponge. The gas escapes through a tube passing through the outer box. The instrument, called a *cryogen*, is represented in *Cosmos* of June 27.

Experiments have lately been made by Herr Regel (*Bot. Centralb.*) with reference to the influence of external factors on the smell of plants. In the front rank appears the direct and indirect influence of light on the formation of etheric oils and their evaporation. In the case of strongly fragrant flowers (as *Reseda*) heat and light intensify the fragrance, which in darkness is lessened without quite disappearing. When the whole plant was darkened, those buds only which were before pretty well developed yielded fragrant flowers; the others were scentless. If, however, only the flowers were darkened, all were fragrant. Other plants open their flowers and smell only by night (as *Nicotiana longiflora* and *Nycterinia copensis*). When these plants were kept continuously in the dark, they, in course of time, lost their scent, as they lost their starch. On being brought into light again, both starch and fragrance returned. Besides light, respiration has a decided influence on the fragrance. Nycterinia, inclosed in a bell jar with oxygen, behaved normally, but with hydrogen the flowers did not open, and had no fragrance. In general, the opening of flowers coincides with their fragrance, but there is no necessary connection between these phenomena.

A new antiseptic, said to have certain advantages over those hitherto in use, has been brought before the French Academy of Medicine by Prof. Berlioz, of Grenoble: extreme solubility, harmlessness, efficacy, and rapidity of action are claimed for it. It is called *microcidine*, and is a compound of naphtol and soda, is neither poisonous nor irritant, is twenty times as active as boric acid, and much more soluble than thymol, carbolic acid, &c. Microcidine has the form of a greyish-white powder. In a solution of 3 grammes per litre it is very slightly coloured, but it does not stain either the hands or bandages. For family use it is said to be of great service.

Most Russian geologists are now of opinion that the boulder-clay which covers the whole of Middle Russia is nothing but the bottom moraine of the ice-cap which, during the Glacial epoch, extended from Scandinavia and Finland to the latitude of Kieff and Poltava. A couple of years ago, Prof. Pavloff, while working in connection with the Geological Survey in Nijni Novgorod, indicated some traces of an inter-glacial milder period among the glacial deposits covering the province. Like indications have been noticed in Poltava and Tchernigoff. New data to confirm this view are now given by N. Krischtafovitch in the *Bulletin* of the Moscow Naturalists (1890, No. 4). After a careful exploration of the Quaternary deposits at Troitzkoye—a village on the Moskva River, seven miles to the west of Moscow, the diluvial deposits of which have very often been mentioned since Prof. Rouillier's and Murchison's times—the Russian geologist came to the conclusion that these deposits are indicative of an inter-glacial period, during which Middle Russia had a flora and fauna much like those which exist now, but with the addition of the Mammoth. The layers described by M. Krischtafovitch as inter-glacial are of lacustrine origin; they are covered with undoubtedly glacial deposits, and they are deposited over glacial sands containing boulders of northern origin. Further research, however, is wanted. It is certain that, both during the first invasion of the ice-cap and its ultimate retreat, its outer limits must have been subject to very great oscillations. We know that, in Greenland, parts of valleys which for hundreds of years were covered with vegetation, are sometimes invaded again with ice, and that lacustrine deposits must arise in this way between purely morainic deposits. The same must have taken place in the ice-cap of Russia; and the oscillations of the glaciers on the outer border of a large ice-cap are on on a much greater scale than the oscillations of isolated glaciers in Alpine regions. When the ice-cap began to invade Middle Russia, its advance was undoubtedly accompanied by many oscillations; regions invaded by ice must have been set free of ice for a succession of years, and they became the seats of lakes. The same oscillations must have taken place during the retreat of the ice-cap. The existence of a warmer inter-glacial period, therefore, though not improbable in itself, can be proved only by means of a very wide exploration of the boulder-clay, and such an exploration has not yet been made.

THE system of meteorological observations in Alsace-Lorraine has now been centralized, a meteorological service for the Reichsland having been established. The control of the new service has been intrusted to the geographical seminary in connection with the Strassburg University, and has been definitely undertaken by Dr. H. Hergesell, who desires to organize the service in accordance with the best modern ideas. A meteorological record will be issued as a part of the German meteorological *Jahrbuch*.

A REMARKABLE series of three hailstorms which passed over Graz on August 21 last year, about 5, 6, and 7 p.m. respectively, has been carefully studied by Prof. Prohaska (*Met. Zeits.*) Stones from 1·6 to 2·4 inches in diameter fell in the town, forming a compact ice-mass, in some places about 3 feet thick, and a white cloud of vapour formed over the ice. It is noteworthy that all three storms took a nearly quite straight path over mountain, valley, and plain; no influence of mountains on the direction was perceptible. The advancing strips of hail were 10 to 14 km. in width; the first went 173 km. east-south-east; the second and third almost exactly east; one 110 km., the other 201 km. The 70 km. stretch of country from Stiwoll over Graz to the Hungarian border lay in the path of all three, so the ice deposited by the first offered no hindrance to the others. Mountains seem to have affected the velocity, if not the direction, of the storms; they were passed more slowly than plains or undulating ground (35 km. an hour against 49 km.). A violent wind came out from the hail column, a west or north-west wind in front, north on the south side. But further out, in front especially, there was a well-marked air-current towards the hailstorm; and this was especially strong on the lee side of a mountain. Whirling movements were not observed, and there was but little thunder and lightning. The falls of temperature were very pronounced: *e.g.* in the first storm from 26° C. to 5°. The barometer went down before each hailstorm, then suddenly rose.

AT the meeting of the Linnean Society of New South Wales on May 27, Mr. Henry Deane stated that in April, while travelling by night through the Big Scrub in the Richmond River District, his interest was aroused by the remarkable effect produced by luminous insects which abounded by the roadside. Specimens were secured and sent off in the hope that they would arrive in time to be exhibited at the previous month's meeting, but they came a day too late, and in the meanwhile had died. From their general resemblance to the larvæ of *Ceroplatus mastersi*, Sk., which are also phosphorescent, Mr. Fletcher, who had seen the specimens forwarded, was of the opinion that these were very probably also dipterous larvæ. Mr. David made some remarks on certain luminous organisms which he had observed in old coal-mine workings in Illawarra, the identification of which it was hoped would not long be postponed.

MESSRS. CASSELL AND CO. have issued Part 33 of the "New Popular Educator," which is to be completed in forty-eight parts. The present number includes, besides the illustrations in the text, a coloured representation of insectivorous plants.

THE first volume of Messrs. Whittaker's new "Library of Popular Science" will be an elementary introduction to astronomy, by Mr. G. F. Chambers. The volume will be ready in the course of a few weeks, and will shortly be followed by others.

AN interesting report, by Mr. Campbell, of the British Consular Service in China, has been issued by the Foreign Office. It is the record of a journey of over 1300 miles in districts in Northern Corea, many of which have never before been visited by Europeans. Mr. Campbell started from Seoul, the capital, and crossed the peninsula to the treaty port of Won-san (Gensan), and thence pursued his way along the east coast around Broughton Bay, whence he turned north-eastward, crossing the Yalu River to Păik-tu-San, known to Europeans as the Long White Mountain, and already visited by Messrs. James, Fulford, and Younghusband. The return journey was partly over the same ground, but on arriving at Won-san Mr. Campbell recrossed the peninsula, and so made his way to Seoul. Besides the ordinary record of this journey Mr. Campbell gives a great amount of information on various subjects connected with Corea. The chief amongst these is a most interesting section on the prevalence of Buddhism in the peninsula, and one on the agriculture and productions. He gives a good deal of information in regard to the geography of Northern Corea, and also of the gold production of the country. That Corea contains gold-bearing strata has long been known through the export of gold-dust from the ports, but from Mr. Campbell's report it appears that gold-fields do exist in considerable numbers, and that some of them are worked with the imperfect native methods. There seems no doubt that, if circumstances were favourable to the proper scientific working of the Corean gold-fields, the country would be one of the principal producers of the precious metal in the world. Education in the country seems to be at a very low ebb, and is confined to a knowledge of Chinese. All energy and enterprise is crushed out by an all-pervading tyrannical officialism, and poverty and squalor are universal.

THE new reports of the Inspectors of Sea Fisheries are interesting chiefly for the observations of Mr. Fryer on the oyster fisheries. He mentions the appearance of a curious disease in the neighbourhood of the Thames estuary, in the course of which the shells become so rotten that they will not bear the pressure necessary to open them. The oysters themselves were in good condition, but their round shells, which were muddy, were completely tunnelled in all directions, while the flat valves, which were clean, were uninjured. This points to the conclusion that the ravages were caused by some enemy working from below. The borings were not, Mr. Fryer says, those of either *Cliona* or whelk-tingle, and it seemed probable that they were the work of a minute Annelid which was present in abundance in the interstices of the shells, and in the adherent mud. In a further example sent to him in June no worms were present, although the oyster-shells were similarly undermined; but their place was taken by larvæ closely resembling, if not identical with, those of the worm *Polydora ciliata*. A means of guarding against its ravages, suggested by Mr. Fryer, is the use of an apparatus recently invented by M. Bouchon Brandély, and employed in some of the French oyster *parcs* for the purpose of facilitating the growth of oysters. This consists of a series of shallow flat baskets or trays of wire-netting on an iron frame, about 4 inches deep and 2 feet square, placed in tiers, and held together by two iron bands, the number depending on the depth of water in each case. These are either fixed to the soil, or suspended from rafts or other floating bodies, by which means depths of water otherwise inaccessible can be utilized. The other advantages claimed for the apparatus are economy of space in "planting" oysters, and of labour in collecting them, protection of the oysters from five-fingers, and from contact with unsuitable soil, and their exposure on all sides to the free circulation of the water, resulting in more rapid and regular growth, and a greater tendency to depth of shell than under the most favourable of ordinary circumstances. In the case of beds infested with the boring worm referred to, the trays in question would in all probability afford a ready means of placing the oysters beyond the reach of these marauders. The convenience of such appliances, especially in cases where French oysters are laid down temporarily on English beds, to be afterwards transferred to other grounds, *e.g.* during the winter, would probably be found to be very great.

AT a meeting of the Chemical Society held on June 18, a paper was read by Ludwig Mond and F. Quincke, on a volatile compound of iron and carbonic oxide. The authors describe experiments from which they conclude that iron forms a volatile compound with carbonic oxide of the formula $Fe(CO)_4$, corresponding to that of nickel. Very finely divided iron—obtained by reducing iron oxalate by hydrogen at a temperature but little exceeding 400°, and allowing it to cool to 80° in hydrogen—when heated in an atmosphere of carbonic oxide gave a gas which burnt with a yellow flame; and on passing the gas through a heated tube a mirror of iron was formed at between 200° and 380°, while at higher temperatures black flakes of iron and carbon were deposited. Only about 2 grams of iron, however, were volatilized after six weeks' treatment of 12 grams of the metal; it was necessary every five or six hours to interrupt the operation, and to re-heat the iron to 400° in hydrogen during about twenty minutes. When passing carbonic oxide at the rate of about 2½ litres per hour, not more than 0·01 gram of iron was volatilized, corresponding to less than 2 c.c. of the compound $Fe(CO)_4$ in a litre of gas. The authors have effected an analysis of the compound by passing the mixture of gases into mineral oil, boiling between 250° and 300°, and heating the solution so obtained to 180°; iron free from carbon is then deposited and carbonic oxide gas is evolved. Five analyses are quoted, the results of which give a ratio of Fe : CO, varying only from 1 : 4·03 to 1 : 4·264. Dr. Armstrong said that the authors' discovery was extremely interesting on account of the explanation which it might be held to afford of the permeability of iron by carbonic oxide at high temperatures, as well as to the production of steel by the cementation process, to which Graham had drawn special attention. Just as platinum was permeable by hydrogen and silver by oxygen at high temperatures, so iron was permeable by carbonic oxide; it might be supposed, in each case, because a dissociable compound of the metal with the gas was formed. Prof. Thorpe drew attention to the value of the experiments in connection with the production of steel by the cementation process, and stated that he had recently observed that platinum had the property of causing the separation of carbon from carbonic oxide. Mr. Mond said they had refrained from discussing the application of their discovery in the directions indicated, as the compound was only obtained at low temperatures. Dr. Armstrong said this might well be the case; but as Mr. Mond and Dr. Quincke had established the all-important fact that iron had a specific affinity for carbonic oxide, the argument he had used would apply, although the compound might not be sufficiently stable at high temperatures to exist alone.

THE additions to the Zoological Society's Gardens during the past week include a Chimpanzee (*Anthropopithecus troglodytes* ♂) from West Africa, presented by Major Al. McDonnell Moore; a Duyker Bok (*Cephalophus mergens* ♂) from South Africa, presented by Mr. A. Barsdorf; five West Indian Agoutis (*Dasyprocta antillensis*) from Jamaica, presented by the Board of Governors of the Institute of Jamaica; a Spotted Cavy (*Cœlogenys paca*) from Guiana, presented by Mr. R. Kirk; two Slow Loris (*Nycticebus tardigradus*), a Javan Fish-Owl (*Ketupa javanensis*) from Java, presented by Mr. R. Dixon; an Orange-cheeked Waxbill (*Estrelda melpoda*), a Zebra Waxbill (*Estrelda subflava*) from West Africa, a Nutmeg Finch (*Munia punctularia*) from India, presented by Mrs. Harris; a Chattering Lory (*Lorius garrulus*) from Moluccas, presented by Miss Alice Dundas; a Common Viper (*Vipera berus*), British, presented by Mr. W. H. B. Pain; four Grey Parrots (*Psittacus erithacus*) from East Africa, deposited; a Thar (*Capra jemlaica*), born in the Gardens.

OUR ASTRONOMICAL COLUMN.

LUMINOUS OUTBURST OBSERVED ON THE SUN.—*Comptes rendus* for June 22 contains the information that on June 17, at 10h. 16m. Paris mean time, M. Trouvelot observed a luminous outburst on the sun, apparently of the same character as that witnessed by Carrington and Hodgson in 1859 (*Monthly Notices R.A.S.*, vol. xx. pp. 13–16). A luminous spot subtending an angle of 3° appeared near the western limb of the sun (position-angle 281°). It had not the characteristic white colour of faculæ, but was yellowish, and strikingly resembled the light emitted by incandescent lamps shortly before they reach their maximum brilliancy. M. Trouvelot's first impression was that an opening at the eye-piece allowed a ubiquitous sunbeam to fall upon the screen upon which the sun's image was being projected, but an examination proved that the phenomenon was truly solar. In fact, shortly after the time of the first observation, a similar brilliant object subtending an angle of about 5° or 6° appeared slightly to the north of the first, its position-angle being about 289°. By means of spectroscopic observations it was found that the first object consisted of a central eruption from which a species of incandescent volcanic bombs were thrown to heights of 2′ or 3′ above the chromosphere, where they rested as if suspended, and appeared as dazzling globes on the red background on which they were projected. A few minutes later the sparkling balls were replaced by numerous brilliant filaments or jets, which at 10h. 24m. were shot out to a height of 5′ 24″. In spite of the vivid light of this prominence only a few lines in the spectrum were seen to be reversed. In addition to the lines C, D_3, F, and G, which were all extremely bright, the line at λ 6676·8, the *b* group, and a line about λ 4394·8, were seen bright. The sodium lines, D_1 and D_2, showed no indication of reversal. Considerable displacements of the C line towards both ends of the spectrum were observed. On the following day at 9h. 30m. the eruption was still very apparent, but diminishing in activity, and at 2h. 45m. all signs of an eruptive prominence had disappeared. The striking character of the outburst led M. Trouvelot to suggest that it might be accompanied by a simultaneous terrestrial magnetic perturbation. This was not the case, however, for after examining the records obtained at Kew Observatory, Mr. Whipple writes that there was not the slightest magnetic disturbance on the dates when the eruption was observed.

LORD HARTINGTON ON TECHNICAL EDUCATION.

THE fourth annual meeting of the National Association for the Promotion of Technical and Secondary Education took place on Friday last at 14 Dean's Yard, Westminster. Lord Hartington, President of the Association, occupied the chair. He said:—

In opening the proceedings it will be, fortunately, unnecessary for me to trouble you with more than a very few brief observations. It has not been considered necessary to make any